

**METHOD AND APPARATUS FOR THE AUTOMATIC  
SYNCHRONIZATION OF DYNAMIC ANGULAR AND  
TIME DOMAIN CONTROL SYSTEMS**

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Abstract of the Disclosure

10 A hardware system is provided for performing angle-to-time and time-to-  
angle conversions in a dynamic angular measurement and control system. The  
system has the capability of updating scheduled event times of other hardware  
timers in the system that are being used to generate output events at some  
specific angular position in the future. One application of the system is in  
automotive powertrain control systems in which the position of the engine is  
determined from a pulsed signal generated by a rotating crankshaft that  
15 accelerates and decelerates over time. The system performs critical calculations  
in hardware which consumes less CPU bandwidth than existing systems,  
resulting in potential cost savings for the overall system.